PROGRESS

OF

MEDICAL SCIENCE.

THERAPEUTICS.

UNDER THE CHARGE OF

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The Use of Strychnine and Digitalis in Diarrhœa.

Mr. Harold Hendley notices that, in fevers of a remittent character, the complication of persistent diarrhœa occurred frequently, and at periods when the patient was worn out by fever and the digestive powers were rapidly failing, determined to use these drugs to combat certain symptoms. In these cases the temperature ranges from 1° to 2½° above normal, the pulse is soft and yielding, not very rapid, and markedly wanting in tone; the motions, four or five daily, increase in number until nourishment appears to excite an action of the bowels, marked by even a greater tendency to fluidity, the extreme being reached when the motions escaped involuntarily, and is followed by a tendency to cardiac failure, if not collapse, frequently accompanied by a consciousness of approaching dissolution in the patient. Digitalis was chosen for these cases because of its well-known general action upon the vasomotor system, strychnine for its less-known more direct action upon that portion of the system concerned in the control of the blood supply to the intestines. The mixture employed was tr. digitalis, ♏iv; liq. strychniæ, ♏ij; spts. chloroformi, ♏v; in water, and repeated at from one to four hourly intervals.—*The Practitioner*, 1892, No. 290, p. 92.

The Treatment of Certain Rebellious Hemorrhages by Counter-irritation over the Splenic or Hepatic Area.

Dr. L.-H. Pettit, calling attention to the close relationship which exists between spontaneous hemorrhages and chronic diseases of the liver, regards the logical treatment of this symptom to be the application of counter-irritation over that organ. *En résumé*: in the event of an abundant spontaneous hemorrhage, or if it is repeated, it is necessary to examine with care the condition of the liver, spleen, and kidneys, and if these organs are diseased it is indicated, at least as far as the liver or spleen is concerned, to apply a cutaneous revulsive more or less energetically in these regions—either blisters or the actual cautery. A milk diet is indicated in the case of nephritis. Perhaps it is advisable that we should also employ digitalis in hemorrhages due to cardiac disease. The intensity of the necessary revulsion varies according to circumstances; in some cases vesication for an hour is sufficient, in others energetic and repeated applications are necessary.—*L'Union Médicale*, 1892, No. 106, p. 361.

MECHANICAL TREATMENT OF CHRONIC RHEUMATISM.

DR. C. O. WALBRIDGE recommends mechanical means, including calisthenics, with its healthful exercise of body and limbs, to break up existing adhesions, to smooth the roughened articular cartilages, strengthen the contracted tendons and nerve tissues, and restore the joint to its former suppleness—first, by a process of stroking and kneading in a centripetal direction, stimulating the lymphatics and venous currents and surrounding tissues to greater activity, carrying the lymph with greater rapidity toward the centre. By these means the lymphatics and circulating system are stimulated, setting up changes in the nutrition, causing healthy activity in the parts. In cases where there is perceptible defective nutrition, constitutional remedies with dietetic medication must be employed. The primary effects are upon the joints, muscles, and nerves. In the joints stiffness, adhesions, and contracted tendons are broken up and got into a proper condition for absorption. The secondary effects are produced upon the circulation and lymphatic system. The muscles and nerves are surely elongated, heat must necessarily be evolved by the manipulations changing the molecules of the muscles from an inactive to an active state, causing internal work, setting up molecular changes in all of the surrounding tissues. The waste material is carried away by increased action of the lymph and circulation, and new nourishment is more readily carried to all parts, feeding them and enlivening the whole organism.—*The Dietetic Gazette*, 1892, No. 9. p. 122.

EUPHORINE.

DR. H. KÖSTER has very carefully studied this remedy, now in use for about two years, and otherwise known as phenyl-urethane. It is used as an antipyretic and antiseptic, but more especially for rheumatism and neuralgia, in eight-grain doses in the form of powder given thrice daily. It does not influence the pulse or respiration, although slight cyanosis has been noticed, and marked symptoms of collapse (one case) have been observed. The remedy is acceptable to the stomach; it produces no subjective symptoms, with the exception of a few cases noted by Sansoni, where a feeling of warmth was experienced; it does not produce any reddening of the skin. He has used this remedy in ninety cases, the temperature being taken in the rectum. In estimating its value as an antipyretic in forty-two cases of different diseases (tonsillitis, acute pneumonia, typhoid fever, influenza, endocarditis, tuberculosis), it can be stated that it is a powerful and practicable antipyretic, but somewhat capricious in its action, at times producing marked effects, and at others, in the same patient, by no means having a similar effect, and that without any satisfactory reason being apparent. After using this remedy in twenty cases of headache, it is evident that it cannot compare with other more usually employed remedies, but may succeed where they have failed. Eleven cases of sciatica were treated without any noticeable, or absolutely without any, result. In fourteen cases of acute articular and seven of muscular rheumatism the results were that the temperature was speedily reduced, leaving the patient without fever after four or five days; the pains were usually lessened, in several cases completely removed, but the treatment was of longer duration than with the salicylates. Yet in some cases the effusion and sensitiveness of the joints disappeared, while the slight remaining pain necessitated the use of the last-mentioned remedies. On the whole, in muscular rheumatism the results were so unsatisfactory that other remedies must be resorted to.—*Therapeutische Monatshefte*, 1892, Heft 8, S. 397.

THE ANATOMICAL CHANGES IN POISONING BY SUBLIMATE.

DR. ANDREA CALANTONI presents a very thoroughly scientific and carefully prepared paper, based upon the literature and upon experiments in the laboratory, from which he deduces the following conclusions: The sublimate penetrating into the blood is eliminated by the kidneys (in a large part) and by the intestine, giving rise, in these organs, to changes of a necrotic nature. In the kidneys, a single large dose being followed by death in a few hours, no changes, save small hemorrhages in the inter-cellular tissues, are found. If life is prolonged from five to ten hours there is found cloudy swelling of the protoplasm; if still longer, epithelial necrosis is clearly shown. In some cases of subacute poisoning there is found a deposition of lime, but differing from the calcareous metastasis of Virchow, in that it is a calcification of single elements and not a secretion of lime from acute decalcification of bone or modification of diffusive power of the renal filter. In the intestine the alterations are chiefly found in the large intestine, and consist of hyperæmia, hemorrhage, and necrosis at the summit of the folds, presenting all the characteristics of a diphtheritic process. There is apparently no relation between the severity of the renal and intestinal lesions. The results of necropsy do not furnish a sure, but only a probable anatomical diagnosis.—*Giornale della Associazione Napolitana di Medici e Naturalisti*, 1892, Puntata i, p. 1.

THE TREATMENT OF TUBERCULAR ADENITIS BY THE METHOD OF LANNELONGUE.

DR. MONCORVO reports a case in which a glandular tumor of tubercular origin, seated in the left submaxillary region, was cured by the injection of four drops of a 5 per cent. aqueous solution of chloride of zinc into the periphery of the tumor. This injection was repeated at varying periods of three to five days, one intermission of six days being necessitated by pain and local reaction. On resuming, two injections of three drops each were made at fortnightly intervals, when local treatment ceased, about two months having elapsed. Four months later examination showed only three small glands, hard to the touch and insensitive to pressure. The general condition of the patient had markedly improved.—*Nouveaux Remèdes*, 1892, No. 15, p. 347.

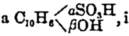
THE VALUE OF QUININE IN MALARIAL HÆMATURIA.

PROF. H. A. HARE, in a very scholarly paper, concludes that in the milder forms of the disease quinine should not be employed during the hæmaturia, nor in those cases in which idiosyncrasies exist. In cases which are malignant in their manifestations in other lines than the mere hæmaturia, and depend upon a malarial paroxysm superimposed upon a malarial dyscrasia, then quinine is needed; but in the hæmaturia following prolonged subacute or chronic malarial poisoning, it is not to be given in full doses, but only as a tonic, the physician relying upon change of climate, nutritive foods, tonics, and other drugs to renovate the patient's tissues.—*Therapeutic Gazette*, 1892, No. 7, p. 448.

THE INTRA-VENOUS TRANSFUSION OF ARTIFICIAL SERUM IN CHOLERA PATIENTS.

DR. L. GALLIARD has employed this method in the treatment of 150 cases, making use of the internal saphenous vein. The formula is: sterilized distilled water 1000, pure chloride of soda 5, sulphate of soda 10, at the temperature of the body, the injection for adults being two quarts. The reason for this treatment is simply to gain time, and aid by these injections the action of remedies. It is not contra-indicated—1, in dry cholera; 2, slow progress of the disease; 3, subnormal rectal temperature; 4, febrile conditions; 5, advanced age of the patient; 6, pregnancy, alcoholism, tuberculosis, cancer, or cardiac affections, although these militate against the success of the operation. The percentage of cures is over fifty. When transfusion was practised *in extremis* one out of six cases has been saved.—*Gazette hebd. de Médecine et de Chirurgie*, 1892, No. 41, p. 481.

ASAPROL.

M. AUGUSTE BOMPARD has made a very thorough study of this new aspirant for therapeutic favor. Asaprol was so named by Dujardin-Beaumetz (ἀ, privative, and σαπρὸς, putrid), from its properties as a general antiseptic. It is a derivative of β-naphthol (β-naphthol: α-mono-sulphonate of calcium), and has the formula  $C_{10}H_6\begin{cases}\alpha SO_3H\\ \beta OH\end{cases}$, in the condition of a lime salt, and occurs as a whitish, odorless, bitter powder; soluble in three parts of distilled water, and in alcohol less soluble. About one-half of the amount ingested is eliminated in the urine; more, however, being thus eliminated if administered in *cachets*. As an antiseptic, in 2 per cent. solution, it retards the development of the bacilli of Asiatic cholera, herpes tonsurans, and typhoid fever; a three per cent. solution completely arrested the two former, and markedly retarded the growth of the bacilli of typhoid, bacillus pyocyaneus, staphylococcus aureus, and of the bacteria of anthrax. As an antipyretic the effect is manifest, rapid, and persistent; in addition, it possesses marked analgesic properties. In the experience of Stackler it was a better antipyretic and analgesic in influenza than antipyrine and quinine, administered consecutively or combined. It is of especial value in acute articular rheumatism, in daily dosage of from fifteen to sixty grains, administered in *cachets*, requiring but two days to demonstrate a marked amelioration of the symptoms. In this relation the excellent results are explained by the generally accepted theory of the microbian origin of acute articular rheumatism, where a general antiseptic, like the one under consideration, can be administered in sufficient doses without harm to the patient. Here its action is quite as rapid as that of the salicylates, and relief is well marked, usually upon the second day, and becomes constantly more marked, and, on the average, cure results in eight days. It is even more certain than the salicylates, no failures being recorded, while in about 22 per cent. of the cases in which the salicylates are employed failures occur. Nor indeed does it, as the salicylates, give rise to nausea or vomiting. Although its taste is bitter, it is not nauseating, nor does it produce vomiting; and, too, the auditory disturbances and the cerebral congestions (of old age) are absent. It is efficient in less than one-half the dose of the salicylates. In fine, it yields in no respect to them, and in certain cases it is superior in that it presents none of their inconveniences. On the other hand, while acute articular rheumatism is of infectious origin, the chronic is undoubtedly the result of a disturbance of nutrition; therefore, in the latter case, we expect to obtain no result other than a temporary analgesic one—and that, indeed, not always. The method of administration is important, the normal dose being sixty grains; rather less than double this quantity if administered by the rectum. The first day the dose should be thirty grains, the next forty-five, and the succeeding days the full amount of sixty grains is needed; which can, if necessary, be continued for several weeks, finally terminating the treatment by gradually diminishing the daily amount. It is better to give small doses at frequent intervals, so that the organism may be kept continuously under the influence of the drug. It can be given in distilled water (a 5 per cent. solution), or in syrup and anise-seed water, or in *cachets*, or as an excellent gargle, in mulberry syrup and in infusion of blackberry leaves. Being a lime salt it is naturally incompatible with all salts which precipitate lime, notably the soluble sulphates and bicarbonate of soda. Iodide of potassium is absolutely incompatible with it. He concludes: 1. It is a soluble body. 2. It is a good general antiseptic. 3. It is a good antipyretic. 4. It possesses analgesic properties. 5. It is a remedy of choice in acute articular rheumatism. 6. It favorably modifies the anginas; it modifies the infectious condition in pneumonia.—*Thèse, Faculté de Médecine de Paris*, 1892.

TRIONAL AS AN HYPNOTIC.

DR. A. BOETTIGER has used this remedy, otherwise known as diethylsuphon methylethylmenthan, in about seventy-five cases in which insomnia has been a prominent symptom. The doses vary from fifteen to sixty grains, administered as a powder in warm water, milk, soup, or tea, in two or three doses, the last being at bedtime. In simple insomnia, sleep follows generally within an hour and lasts six to nine hours. It is apparently as effective in one-third the dose as chloralamide or amylène hydrate. In insomnia the sequence of bodily pain, the conclusion is that the pain itself is not influenced. Among insane patients, mildly affected; trional is a serviceable hypnotic; in more severe cases, in larger dosage—that is, from frequent repetitions—it is often valuable. Apparently patients do not become habituated from continued usage.—*Berliner klinische Wochenschrift*, 1892, No. 42, S. 1045.

SALOPHEN.

DR. CAMINER, from his observations of the use of this remedy, has not found that it disarranged digestion, but that only in the intestine is it decomposed into its constituents, salicylic acid and acetylparamidophenol. He administers it in fifteen-grain doses, every two hours, up to the daily amount of ninety grains, in acute articular rheumatism. It produces marked results upon pain, redness, and swelling, so that within six to ten days the patient is entirely free from pain, nor has he observed any relapses. As acetylparamidophenol is a decomposition-product of phenacetine, to which with probability may be ascribed its analgesic properties, we may expect that this compound will relieve pain more markedly than either salicylic acid or phenacetine alone. He records its successful use in habitual headaches, trigeminal neuralgias, and failure in sciatica (one case). In hemicrania, relief follows its administration during the attack, but the intervals are not lessened. He reports no toxic effects in the cases under observation.—*Therapeutische Monatshefte*, 1892, Heft 10, S. 519.

LOSOPHAN.

DR. EDMUND SAALFELD reports that this new aspirant for recognition among the iodine preparations has the formula $C_6HI_3.CH_3.OH$, occurring in white needles, soluble with some difficulty in alcohol, but easily in ether, benzol, and chloroform; it contains about 80 per cent. of iodine. It has been used in a 2 per cent. solution in equal parts of alcohol and water, but on account of precipitation a 1 per cent. solution is preferable, together with a larger percentage of alcohol (to 75 per cent.). The reported cases include those of mycosis tonsurans, herpes tonsurans, sycosis parasitaria, and pityriasis versicolor. In eczema it has been used as a 1 or 2 per cent. ointment of vaseline or of lanolin to which 20 per cent of vaseline is added. He has found it of use in most of the mycoses, in prurigo, and in chronic infiltrated eczema, sycosis vulgaris, acne vulgaris, and rosacea. It is of less use as an anti-pruritic in urticaria, and without result in psoriasis vulgaris and primary syphilitic affections. In the form of a dusting-powder it does not markedly affect secretion and is of secondary value as compared with other commonly used remedies. It is contra-indicated in all acute inflammatory cutaneous diseases, which are irritated by it even in weak solutions.—*Therapeutische Monatshefte*, 1892, Heft 10, S. 544.

THE HARMLESSNESS OF DERMATOL.

DR. E. GLAESER reports an instance in which a liberal use of subgallate of bismuth in powder form with flushings of a 1 per cent. sublimate solution was followed by death, the patient having received extensive burns from the explosion of a kerosene lamp. By means of the alkaline secretion from the wounds the dermatol is broken up into gallic acid, hitherto shown by Heinz to be absolutely innocuous, and into oxide of bismuth. In this case the bismuth or the mercury must have been at fault, and taking into consideration the results of the necropsy, he believes that this death could be justly attributed to the sublimate. However, the fact that bismuth may give rise to toxic symptoms, as has been pointed out by Kocher and Petersen, should be borne in mind.—*Berliner klinische Wochenschrift*, 1892, No. 41, S. 1024.

[The author calls attention to the fact, quoting Langhaus, that in bismuth poisoning the same calcareous changes are found in the kidneys as in sublimate intoxication.—R. W. W.]

THE TREATMENT OF CHOLERA IN THE ALTONA HOSPITAL.

DR. DU MESNIL has had under his observation about five hundred cases during the last epidemic. To destroy the bacteria *in situ* he administers calomel in seven-grain doses twice in the course of two hours, following with grain doses every second hour, believing this to be of more value than salol, creolin, or other cresol preparations. Further antisepsis he obtains with Cantani's tannin injection (10 : 2000). To meet the indication presented by the abstraction of water from the tissues and thickening of the blood and the resultant symptoms, he employs the sodium chloride infusion injected into the veins. He stimulates the heart, when it is required, with camphor, makes use of baths, 90° to 96° F., and relieves vomiting and muscular cramps in legs by morphine. The mortality, excluding the cases of diarrhœa when the diagnosis was not established, was 58 per cent.—*Münchener medicinische Wochenschrift*, 1892, No. 41, S. 722.

THE COMPARATIVE ACTIONS OF ANTIPYRINE, PHENACETINE, AND PHENOCOLL ON THE CIRCULATORY AND HEAT PHENOMENA.

DRS. DAVID CERNA and WILLIAM S. CARTER record their conclusions as follows: 1. *Antipyrine* in small and moderate amounts produces a rise of the arterial pressure, this stimulating effect being due to an action upon the heart. 2. The lowering of the pressure by large or toxic doses is due similarly to a depressant effect of the drug upon the cardiac organ. The remedy does not seem to influence the vasomotor system. 3. Antipyrine causes an increase in the pulse-rate through paralysis of the cardio-inhibitory centres. The secondary decrease in the number of pulsations is of purely cardiac origin, the drug exercising a depressant effect upon the heart itself. 4. In excessive doses only, it changes the hæmoglobin of the blood into methæmoglobin. 1. *Phenacetine* in moderate doses causes a rise of arterial pressure by acting upon the heart, and probably, likewise by a stimulating influence exercised on the vasomotor system. 2. The reduction of pressure by the drug in large amounts is mainly of cardiac origin. 3. It increases, in small doses, the force of the heart by direct action. 4. It increases the pulse-rate chiefly by cardiac stimulation, and possibly also by influencing the cardio-accelerating apparatus. 5. It reduces the number of the pulsations, especially when given in large quantities, primarily by stimulating the cardio-inhibitory centres, and later, by a depressant action upon the heart. 1. *Phenocoll* in ordinary amounts has practically no effect upon the circulation. 2. Large doses diminish the blood pressure by influencing the heart. 3. It reduces the pulse-rate by stimulating the cardio-inhibitory centres. It then increases the rapidity of the pulse by paralyzing these centres. The final diminution is of cardiac origin. 4. Upon the blood itself it has no action. In regard to *heat* *phenomena* it was found—1. That all three fail to produce any effect on the heat functions of the normal animal. 2. Antipyrine produces a decided fall of temperature in the first hour after its administration to a fevered animal. This reduction is due to a great increase in heat distribution, together with a fall in heat production. 3. Phenacetine, both in septic and albumose fevers, produces a very slight fall of temperature during the first and second hours after its ingestion by the stomach, but the greatest reduction occurs the third hour after its ingestion. The fall of temperature results chiefly from a decrease in heat production, with a slight increase in the heat distribution; the increase in distribution is not so great as with antipyrine. Probably the delayed action of the drug depends upon its insolubility. 4. Phenocoll causes in fever a very decided fall in temperature, which occurs the first hour after the administration of the drug by the stomach. This reduction is the result of an enormous diminution of heat production, without any alteration of heat distribution.—*Notes on New Remedies*, 1892, No. 4, p. 49.

MEDICIN .

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A CASE OF PHLEGMONOUS GASTRITIS AND A CASE OF SUB-PHRENIC ABSCESS.

MEYER (*St. Petersburger medicinische Wochenschr.*, 1892, No. 40, p. 373) reports the case of an engineer, forty-one years old, who, a day after participating in a social gathering, complained of a feeling of indisposition. In the evening a chill occurred, and the patient began to act strangely. Later in the night vomiting of bile and mucus set in. On the following days the vomiting continued; the abdomen was tender; the pulse was small, hard, and regular; the pupils were small and sluggish; the temperature was elevated; delirium continued; albumin appeared in the urine; slight jaundice developed; the area of hepatic percussion dulness became increased and painful; posteriorly the pulmonary percussion note was impaired to the level of the spine of the scapula, with enfeeblement of the respiratory murmur, while, above, the breathing was bronchial. The patient failed to improve; pulmonary œdema set in, and death took place. At the autopsy the right pleural cavity contained a small quantity of turbid fluid, the left pleural cavity clear serum with numerous gelatinous fibrin-coagula. The